

**REMARKS/ARGUMENTS**

Reconsideration of this application is requested. Claims 27-33 are in the case.

**I. OBVIOUSNESS-TYPE DOUBLE PATENTING**

Claims 27-33 stand rejected on obviousness-type double patenting grounds as allegedly constituting obviousness-type double patenting over (1) claims 1-12 of co-pending application Serial No. 10/477,122 in view of U.S. Patent 4,600,631 to Alei, (2) claims 10-16 of co-pending application Serial No. 10/496,500 in view of Alei and (3) claims 16-22 of co-pending application Serial No. 10/496,294 in view of Alei.

Reconsideration is respectfully requested.

The above obviousness-type double patenting rejections (1)-(3) are provisional obviousness-type double patenting rejections since neither the present application nor the co-pending applications have been granted. As the present application has the earlier date and is likely to be allowed prior to the copending cases, it is believed appropriate to permit the present case to issue and, if double patenting still pertains (it is believed that there is no obviousness-type double patenting for the reasons discussed below), to convert the provisional obviousness-type double patenting rejections to actual obviousness-type double patenting rejections over the patent to issue on the present case.

In any event, it is believed with the claim revisions presented herewith that no obviousness-type double patenting exists. Withdrawal of the provisional obviousness type double patenting rejections is accordingly respectfully requested.

## **II. THE 35 U.S.C. §112, SECOND PARAGRAPH, REJECTION**

Claims 27-33 stand rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite. In response, claim 27 was amended in the Amendment dated July 15, 2005 to adopt the Examiner's suggested correction of replacing "are" in line 4 (first occurrence) with "and". Withdrawal of this rejection is now respectfully requested.

## **III. THE OBVIOUSNESS REJECTION**

Claims 27-33 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent 5,628,946 to Ward et al in view of U.S. Patent 4,600,631 to Alei et al. That rejection is respectfully traversed.

The present invention is directed to a polymeric material comprising a compressed assembly of melt formed fibers of a cross-linked oriented polyolefin. The fibers are bound together by a recrystallized melt comprising from 10% to 50% by weight of the polymer in the material, wherein both fibers and recrystallized melt phase are derived by a process comprising subjecting molecularly oriented polyolefin fibers to a cross-linking process, providing an assembly of the cross-linked polyolefin fibers, and subsequently subjecting the assembly of cross-linked fibers to conditions of temperature and pressure sufficient to melt from 10 to 50% of the polymer in the material and to compact the assembly such that the material is formed. Basis for the process appears beginning at page 1, line 30. Basis for the range of 10-50% appears at page 11, line 34. No new matter is entered and no new issues are raised.

Ward describes a process for producing a homogenous polymeric monolith wherein an assembly of oriented thermoplastic polymer fibers is maintained under a

contact pressure sufficient to ensure intimate contact at an elevated temperature high enough to melt a proportion of the polymer. The assembly is subsequently compressed at a compaction pressure higher than the contact pressure while still being maintained at the elevated temperature. Ward does not describe or suggest fibers which are cross-linked, in contrast to the presently claimed invention, where the polymeric material comprises a compressed assembly of melt formed fibers of a cross-linked oriented polyolefin.

Alei does not generate a *prima facie* case of obviousness, either with or without Ward. In Alei, the cross linking process (column 4 line 35 to 39) converts the polymer

"...from a thermoplastic polymer, which flows upon heating above its melting temperature, to a thermoset polymer, which becomes relatively soft and rubbery at high temperature **but does not melt and flow.**" (Emphasis added).

Alei states that the cross linked polymer **does not melt and flow**, whereas this occurs in both the present process and that of Ward. It is clear, therefore, that there would have been no motivation for one of ordinary skill to combine Alei with Ward and, in fact, Alei leads away from a combination with Ward. The difference between the two processes and the resulting materials is further highlighted at column 2, line 60 *et seq.* of Alei, which states that:

"...the temperature of the compression moulding process [is] selected to be sufficient to provide a fusing or sintering of the fibres so as to bond them together **without affecting the molecular orientation** which was previously achieved" (Emphasis added)

This is not the case in the present invention which **requires** that between 10 and 50% of the fibres actually melt (page 11, lines 30-35) and therefore lose their molecular orientation.

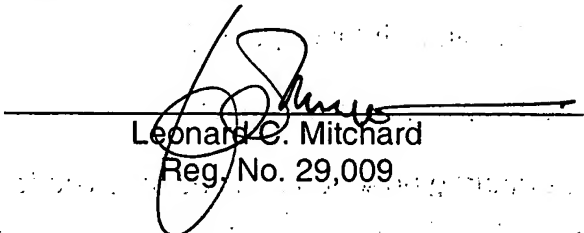
In light of the above, one of ordinary skill would not have been motivated to combine Ward and Alei, and even if such a combination had been attempted (it is believed this would not have occurred to one of ordinary skill), the presently claimed invention would not have resulted or have been rendered obvious thereby. Absent any such motivation to combine, a *prima facie* case of obviousness has not been generated in this case. Reconsideration and withdrawal of the outstanding obviousness rejection are accordingly respectfully requested.

Favorable action on this application is awaited.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By: \_\_\_\_\_

  
Leonard C. Mitchard  
Reg. No. 29,009

LCM:lfm  
901 North Glebe Road, 11th Floor  
Arlington, VA 22203-1808  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100